Remarks

Claims 5-9 are pending in the application. Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. Claims 6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chagnot, U.S. pat. no. 5,069,272, Claim 5 would be allowable if rewritten to overcome the rejection(s) under 35 U.S.C. 112, second paragraph, set forth in this Office action and to include all of the limitations of the base claim and any intervening claims.

Claim 5 has been amended to replace "cross-linking" by "bonding," as suggested by the Examiner. Claim 5 has been further rewritten to incorporate the limitations from former claim 1, from which it formerly depended. Claims 6 and 8 have been amended to place these claims in Jepson format and to require that the regenerator be an improvement on a thermal cycle engine with a working fluid recycling between two sections. Support for the latter amendment is provided on page 5 of the present application, lines 1-35 and in figure 2.

Claim Rejections --- 35 U.S.C. §112, second paragraph

Claim 5 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 5 has been amended to replace the term "cross-linking" with the term "bonding," as suggested by the Examiner. Claim 5 is now clear and definite.

Claim Rejections --- 35 U.S.C. §102(b)

Claims 6, 8, and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Chagnot.

Chagnot shows an annular recuperator comprising random fibers disposed in an annular matrix bounded on either end by a screen 44 and by outer and inner sleeves (42, axle 34). (See lines 37-60 of column 4 of Chagnot.) Chagnot's recuperator recovers heat flowing from the outdoors into and out of a building. The air is not in an enclosed system and does not recycle between the hot and cold sections of a thermal cycle engine.

Claim 6, as amended, requires in part:

"In a thermal cycle engine comprising a warmer section and a cooler section and a working fluid recycling between the sections, an improvement comprising a regenerator through which the working fluid flows, the regenerator including..."

As stated above, claim 1 is in Jepson format. For a reference to anticipate a Jepson claim, the reference must teach every limitation of the claim preamble, as well as the improvement. See e.g., Rowe v. Dror, 112 F.3d 473, 479, 42 USPQ2d 1550, 1553 (Fed.Cir.1997). Since Chagnot does not teach the limitations of the preamble, Chagnot cannot anticipate claim 6 as amended.

Claim Rejections --- 35 U.S.C. §103(a)

Claim 7 is rejected under 35 U.S.C. 103(a) as being unpatentable over Chagnot.

Claim 7 depends from claim 6 and adds further limitations. Claim 7 is patentable over Chagnot for at least the same reasons as for claim 6.

Claim Objection

Claim 5 has been rewritten to include all of the limitations of former claim 1 from which it formerly depended.

The Commissioner is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 19-4972. Applicants request reconsideration of the rejected claims and a notice of allowance. The Examiner is requested to telephone the undersigned if any matters remain outstanding so that they may be resolved expeditiously.

Respectfully submitted,

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